



THE STATE OF UTAH  
OFFICE OF STATE ENGINEER  
SALT LAKE CITY

T. H. HUMPHERYS  
STATE ENGINEER

May 17, 1939

REL: PETITION OF J. VERN ERICKSON, ET AL.  
MONROE CREEK WATER USERS

Memorandum for Office Study only, by AUSTIN BURTON

On May 5, 1939, prior to a meeting of the Monroe Creek water users called for 8 p.m., an examination was made of the diversions and measuring devices of all ditches diverting water from this creek along with Reid Jerman, J. Lerue Ogden (Sevier River Water Commissioner), and Martin Larsen (Monroe Creek watermaster).

Upon leaving the canyon, Monroe creek traverses a sand and gravel aluvial fan that is fairly free of clay or other fine material. The slope is so great that the creek moves much sand and gravel into the diverting channels of the ditches.

There are six ditches in this system as follows: Monroe Town, Beck, Annabella, Jones, Bohman, and Bertelsen. Beck ditch is a diversion from or lateral of the Monroe Town, but the others are direct diversions from Monroe creek. Monroe Town ditch, the highest, is diverted from the north bank near the mouth of the canyon and carries primary water, with the Beck ditch diverting from its right bank about 1/2 mile from the creek. The Annabella ditch is conveyed through a side channel not far from the head works of the Monroe Town ditch and is diverted from this side channel about one mile from the channel heading. The Bertelsen ditch is diverted from the south bank of the creek about 500 ft. downstream from the Monroe Town ditch. The creek branches about 800 ft. below the Bertelsen diversion, and nearly 1/2 mile down the north branch the Jones-Bohman ditch is diverted from the left bank. This ditch contours the fan and at 600 or 800 ft. the Jones ditch diverts on the lower side, while the Bohman ditch continues on the contour intercepting the south branch of the creek. An old extension of this ditch heading in the Monroe Town ditch was used for winter delivery many years ago.

The Bertelsen ditch has a poorly constructed wooden head gate and a concrete and lumber spill about 500 ft. from the head gate. The Monroe Town ditch maintains concrete control works in the creek about 20 ft. wide with a wall extending across the canal with flashboard canal control, and the water is measured 500 ft. from the head gate by a lumber and concrete 4-ft. Cipolletti weir with removable crest. The weir pond was partly filled with sand and gravel and the crest had swelled until it was too long for the opening; otherwise, it was in good condition. The Beck ditch has a wood gate in the upper bank of the Monroe Town ditch, and 100 ft. downstream there is a wooden Cipolletti weir with 2-ft. crest. The weir is in very good condition but the pond is partly filled. The Annabella ditch has no device or control in the side channel, but about 10 ft. from the point of diversion from said channel a rectangular weir has been constructed of 3-in. lumber. The weir crest is 3 ft. long with a flat edge ~~the~~ the full width of the 3-in. lumber. The weir pond is not wide

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The points of diversion of the Monroe Town and Bertelsen ditches are well defined, but this is not so in the case of the Annabella and Jones-Bohman. It is possible that the side channel at the head of the Annabella should be considered a part of the ditch and the point of diversion at the head of this channel. It is likewise possible that the old dry wash should be considered the main creek channel and that the point of diversion of the Jones-Bohman ditch is but a short distance below that of the Bertelsen. Two meter measurements were made on the Annabella, one at the head of the side channel and the other at the weir 30 minutes later. These measurements indicated a loss of 20% on a delivery of 4 sec. ft. at the weir. No measurements were made of the water leaving the Bertelsen which is diverted by the Jones-Bohman, because no section could be found that was at all suitable for meter measurements. No doubt there is 20% loss between the Bertelsen waste gate and the weirs of the Jones-Bohman. The question of loss in the Bertelsen was not raised, but the canal material would justify the conclusion that there is serious loss between the diversion and measuring section.

The Monroe Town and Jones-Bohman diversions irrigated lands on the east side of the valley and the Bertelsen on the south and west sides of the valley. Some years before the drought, the Jones rights were sold and diverted through the Bertelsen ditch for use on the west side. The purchaser of the Jones rights defaulted during the drought and Mr. Jones bought the rights back and again diverted it to the original area. The point of diversion of the Jones and Bohman ditch has been moved about considerably because of the natural changing of the creek channel out on the fan. In recent years the Annabella and Beck ditches have been constructed and are supplied by high-water rights purchased from these other ditches. In recent years the high-water rights have been changed about very much in these ditches and the primary to some extent, so that each ditch now has a mixture of these rights.

The water rights are of seven classes: primary, which originally was diverted through the Monroe Town ditch; high-water classes 1 and 2, which were diverted through the Jones-Bohman ditches, and high-water classes 3 to 6, which were diverted through the Bertelsen ditch.

The Jones ditch has a wood and concrete Cipolletti weir, with a 3-ft. crest about 100 ft. from the division from Bohman ditch. This weir is in very good condition and the pond is well cleaned. The Bohman weir is in the center branch of the Bohman ditch about 100 ft. from the division of the second two branches and is of the same size and condition as the Jones weir. Years ago the Jones and Bohman water measured about 800 ft. upstream from the Jones weir, which is wood and concrete. The Bertelsen measuring section is a concrete control across the canal, with an 11-ft. crest, about 3/8 miles from the point of diversion. This is being used as a rectangular weir, but has no end contractions and should be used as a rating section.

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At the meeting in the evening, a copy of the minutes of which are attached hereto, Mr. Jerman explained the seriousness of changing the point of diversion of water without first applying for such change in the office of the State Engineer.

AB/fm